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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,938

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EXAMINER

YAMNITZKY, MARIE ROSE

ART UNIT

PAPER NUMBER

1786

NOTIFICATION DATE

DELIVERY MODE

05/11/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/585,938	Applicant(s) UETANI ET AL.	
	Examiner Marie R. Yamnitzky	Art Unit 1786	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>23 March 2010</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. This Office action is in response to applicant's amendment filed March 23, 2010, which amends claims 9-11.

Claims 1-13 are pending.

2. With respect to the IDS filed March 23, 2010, U.S. Patent Cite No. 1 has been considered by the examiner but is lined through on the PTO/SB/08a because it is already of record via a prior PTO-892. Foreign patent document Cite Nos. 3, 4 and 5 have not been considered because no copies were provided, but the corresponding U.S. documents identified on the PTO/SB/08a have been considered and are made of record.

3. The rejection of claims 10 and 11 under 35 U.S.C. 112, second paragraph, as set forth in the Office action mailed September 23, 2009 is overcome by claim amendment.

4. Claim 9 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis for "the molecule" as recited in line 2 of claim 9.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-13 stand rejected under 35 U.S.C. 102(a) or 35 U.S.C. 102(e) as being anticipated by Kitano et al. (US 2004/0109955 A1) for reasons of record in the Office action mailed September 23, 2009.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-8 and 10-13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kreuder et al. (US 5,814,244) for reasons of record in the Office action mailed September 23, 2009.

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9. Claims 1-6 and 10-13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (US 6,034,206) for reasons of record in the Office action mailed September 23, 2009.

10. Claims 1-7 and 9-13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. (US 6,630,566 B1) for reasons of record in the Office action mailed September 23, 2009.

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-13 stand provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 10, 11, 16-18 and 21-24 of copending Application No. 10/647,454 for reasons of record in the Office action mailed September 23, 2009.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Applicant's arguments filed March 23, 2010 have been fully considered but they are not persuasive.

With respect to the rejection of claim 9 under 35 U.S.C. 112, second paragraph, the amendment does not correct the problem of lack of antecedent basis for "the molecule". Presuming for the sake of argument that the at least one polymerizable substituent required by claim 9 may be present anywhere within the polymer compound, the examiner suggests deleting the phrase "in the molecule of the polymer compound".

With respect to the rejection under 35 U.S.C. 102(a) or 102(e) based on Kitano et al., applicant argues that Kitano does not disclose or suggest a layer (L) between the light emitting layer and the anode as required by the present claims. The examiner respectfully disagrees. Kitano discloses polymers meeting the limitations of the polymer required for layer (L) of the present claims. In paragraph [0191], Kitano teaches that the polymer may be in a hole transporting layer. In [0214], [0216], [0245]-[0247], [0251]-[0253], [0264]-[0266] and [0270]-[0272], Kitano describes multilayered device structures in which a hole transporting layer exists

between a light emitting layer and an anode. Although Kitano does not provide a working example of a device in which the polymer is present in a hole transporting layer that exists between a light emitting layer and an anode, such devices are clearly within the scope of Kitano's disclosure.

Referencing data set forth in the specification, applicant further argues that the presently claimed invention exhibits an unexpectedly longer half-life. The rejection based on Kitano was one of anticipation rather than obviousness. However, if the rejection had been made under 35 U.S.C. 103, the data would not be persuasive because the data do not demonstrate unexpected results commensurate in scope with the claims. Layer (L) of the device of Example 1 comprises a copolymer of the compound E monomer represented by the formula shown on page 93 and the amine compound represented by the formula shown on page 97. The compound E monomer provides a repeating unit within the scope of formula (4) as set forth in present claim 8, but is not a required component of the polymer for any of the claims. The amine compound represented by the formula shown on page 97 provides one of numerous repeating units within the scope of those represented by formula (1) as set forth in present claim 1, and none of the claims requires a polymer comprising that particular amine repeating unit. While the present claims and Kitano's disclosure encompass the copolymer used in layer (L) of Example 1, none of the present claims are limited to that copolymer, and Kitano discloses and suggests many other polymers within the scope of the polymer required for layer (L) of the presently claimed device.

Further, the light emitting layers of the devices of Example 1 and Comparative Example 1 consist of a 25:75 weight ratio mixture of the polymer used in layer (L) of Example 1 and a

fluorene copolymer. None of the claims require this polymeric mixture in the light emitting layer. The claims merely require a light emitting layer, with no limitation placed on the composition of the light emitting layer.

With respect to the rejections under 35 U.S.C. 103(a) based separately on Kreuder et al., Yamamoto et al., and Allen et al., applicant argues that none of the cited references discloses or suggests a layer (L) between the light emitting layer and the anode as required by the present claims. The examiner respectfully disagrees. Each of the applied references discloses or suggests polymers comprising a repeating unit of formula (1) as required for layer (L) of the claims. Kreuder teaches that the polymers are suitable for use in a hole-conductor layer (e.g. see c. 2, l. 43-45; also see c. 18, l. 2-4). Yamamoto teaches that the polymers are capable of efficient positive hole transport and hold promise for use as a positive hole transport material in organic EL devices (e.g. c. 9, l. 39-43). Allen teaches that the polymers may be used as charge transport materials in electroluminescent devices (e.g. c. 1, l. 5-10). Multilayered EL device structures having a hole-injecting and/or hole-transporting layer disposed between a light emitting layer and an anode were well-known in the art at the time of the invention, and the examiner maintains the position that, given the prior art teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to use Kreuder's polymer, Yamamoto's polymer, or Allen's polymer in a layer between a light emitting layer and an anode in a multilayered organic EL device structure.

With respect to the rejections under 35 U.S.C. 103(a), applicant further argues that the presently claimed invention exhibits an unexpectedly superior half-life. As previously noted, it

is the examiner's position that the data do not demonstrate unexpected results commensurate in scope with the claims. Further, in the case of Kreuder's disclosure and Yamamoto's disclosure, the examiner referenced specific structural units taught by the prior art that provide polymers comprising a repeating unit of formula (1) within the scope of the rejected claims. The data of record do not pertain to polymers made from/comprising these prior art structural units, and therefore do not provide a showing of unexpected results compared to the applied prior art.

With respect to the provisional obviousness-type double patenting rejection based on claims of copending application No. 10/647,454, applicant requests reconsideration "in view of the arguments set forth above." Since the provisional obviousness-type double patenting rejection is based on the Kitano application, the examiner presumes applicant is referring to the arguments set forth with respect to the rejection under 35 U.S.C. 102(a) or 102(e) based on the corresponding Kitano publication. The examiner's position regarding those arguments is as set forth above. Further, as noted in the rejection as set forth in the Office action mailed September 23, 2009, while the copending claims do not require the polymer to be in a layer between a light emitting layer and the anode, the function of the layer comprising the polymer per the copending claims is not limited, and the use of amines in a hole-injecting and/or transporting layer positioned between an anode and a light emitting layer was well-known in the art at the time of the invention.

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14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday and Wednesday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

/Marie R. Yamnitzky/
Primary Examiner, Art Unit 1786

MRY
May 06, 2010